

NCSU Mathematics Department

MA 407H – Introduction to Modern Algebra for Math Majors

Fall 2009, MWF 1:30-2:20, SAS 2225

Instructor: Dr. Bojko Bakalov, office SAS 3116, phone 513-7442,
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Course Webpage: <http://www4.ncsu.edu/~bnbakalo/ma407h.html>

Office Hours: MWF 2:30-3:30 or by appointment, in SAS 3116.

Prerequisite: MA 225. **Note:** Credit is not allowed for both MA 403 and MA 407.

Contents: Elementary number theory, equivalence relations, groups, homomorphisms, cosets, Cayley's Theorem, symmetric groups, rings, polynomial rings, quotient fields, principal ideal domains, Euclidean domains.

Text: *Contemporary Abstract Algebra by Joseph Gallian*, 7th edition, Brooks Cole, 2009. ISBN-10: 0547165099. ISBN-13: 978-0547165097. (5th or 6th edition OK.)

Tutoring may be available free of charge at the Multimedia Center (SAS 2105).

Grade will be determined from the homework, three mid-term tests and the final exam. Homework will be given the same weight as a test and then the lowest of the four grades will be dropped. The remaining three grades will count 70% and the final exam will count 30%. In case of excessive absences, all three tests and the homework will be taken into account when determining the grade. The 10-point scale with +/- will be used.

Homework will be assigned regularly and will be collected and graded. It must be done individually and turned in at the beginning of the lecture on the due date. Late homework will be accepted only in case of a documented excused absence. Selected problems will be discussed in class.

Tests: There will be three tests and a cumulative final exam (on Wednesday, Dec. 16, 1-4 p.m.). If you miss a test, I will need a letter documenting the reason. Makeup tests can only be given for reasons such as illness, family emergency, participation in a University-sponsored event, required court attendance or military duty, or religious observances as certified by the Department of Student Development. If you know you will be absent on a test date, you must clear the absence with me in advance and schedule a makeup date. In the case of an unanticipated absence on a test date, you must give me documentation and schedule a makeup date as soon as possible. Keep the day and time of the final exam in mind when scheduling plane tickets or making other obligations as the university has strict policies on missing the final exam.

Attendance: Students are expected to arrive on time, to contribute to group work and class discussions, and to stay until the class ends. Attendance at all meetings of the class is expected and will be recorded. Occasional absences will be approved if they meet University policies (see http://www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.4.php).

H1N1 Information: If you are ill with symptoms of H1N1 influenza (i.e., fever over 100, sore throat, cough, stuffy or runny nose, fatigue, headache, body aches, vomiting and diarrhea) please do not come to class. Instead, immediately contact your medical provider or Student Health Services (515-7107) for advice or to arrange an appointment. If you are diagnosed with H1N1, please inform your instructor immediately. You will be required to be isolated away from class for up to 7 days or 24 hours after symptoms subside, whichever is longest.

Adverse Weather: Announcements regarding scheduled delays or the closing of the University due to adverse weather conditions will be broadcast on local radio and television stations and posted on the University homepage.

Cell Phones: Pagers, cellular phones and other types of telecommunication equipment are prohibited from use during class. Make sure that any pagers, phones or other equipment are turned off during the class period. If you have a special need to have your pager or phone on during class, please let me know.

Academic Integrity Statement: Students are required to follow NCSU policy available at http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php. *“Academic dishonesty is the giving, taking, or presenting of information or material by a student that unethically or fraudulently aids oneself or another on any work which is to be considered in the determination of a grade or the completion of academic requirements or the enhancement of that student's record or academic career.”* (NCSU Code of Student Conduct). The Student Affairs website has more information (http://www.ncsu.edu/student_affairs/osc/AIpage/acaintegrity.html).

Statement for Students with Disabilities: Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disabilities Services for Students (http://www.ncsu.edu/provost/offices/affirm_action/dss). For more information on the NCSU policy on working with students with disabilities, see http://www.ncsu.edu/provost/hat/current/appendix/appen_k.html

Class Evaluations: Online class evaluations will be available for students to complete during the last two weeks of class. Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will never know how any one student responded to any question, and students will never know the ratings for any particular instructors.